



Financial Stability of Islamic Banks in Pakistan: An Empirical Analysis

Inayat Ullah

Department of Public Administration, Gomal University, D.I. Khan, Pakistan

Abstract: In the worldwide operations, there were 1.3 trillion assets of Islamic banks in 2012, with the growing rate of 15% annually. According to State Bank of Pakistan (SBP), there are five (5) full-fledged Islamic banks operating in Pakistan and their share of deposits in banking industry is nearly 13% and is expected to grow to 20% by 2020. Being the deposit taker and engine of economy, banks are required to be financially sound. With the passage of time, the share of Islamic banks is growing in the industry and corporate or potential investors are very keen to know about bank's credibility and stability, which is very much questioned. To answer this, an empirical measure, i.e., Z-score, was calculated and compared with large as well small conventional banks operating in Pakistan. Financial statements for the last eight years (2007-2014) of fifteen banks were obtained and the ratios were calculated for each bank. During analysis, five large conventional banks, five Islamic banks and five small conventional banks were selected from Pakistan. Based on the average values of ratios and empirical analysis using statistical tools, it was found that Islamic banks were more stable financially than both large and small conventional banks but their return on assets was comparatively smaller than large conventional banks, however, it was larger than small conventional banks.

Key words: Islamic banks stability, Conventional banks stability, Financial stability, Z-score.

INTRODUCTION

Islamic banks have a healthy share in deposits and other banking services across the globe including Pakistan. Islamic banking stemmed officially in 1970, when Finance Ministers of the Islamic Countries held conference at Karachi, Pakistan. At first, Islamic Development Bank was setup in 1975 and the first modern Islamic Bank, i.e., Dubai Islamic Bank, was established in 1979. Starting from only one institution in 1975, now Islamic Banking is being practiced in more than 75 countries, including Europe and United States, with more than 300 Islamic financial institutions (El Qorchi, 2005).

According to Thomson Reuters' estimates, total value of financial assets of Islamic Banks Worldwide was nearly US\$ 1.3 trillion in 2012. Only the Sukuk (an Islamic financial instrument, equivalent of bond) worth US\$ 84 billion in 2011 in world financial market is growing @ 10-15% annually (IDB, 2011; Ainley *et al.*, 2007). As the nature of Islamic Finance is asset-backed which makes it ideal for building highway networks, ports and other big projects. According to the estimate of Asian Development Bank (ADB) US\$ 800 billion will be needed for infrastructure financing in Asia alone over the next decade (ADBI, 2010). Keeping in view the future

perspective, Turkey, Indonesia and Jeddah based Islamic Bank, i.e., Islamic Development Bank, is planning to establish an Islamic Infrastructure Bank with minimum investment of US\$ 300 million each by Turkey and Indonesia.

According to a press release by SBP (2015), in Pakistan, five full-fledged Islamic banks, one MCB (Muslim Commercial Bank Ltd.), Islamic banking subsidiary and seventeen conventional banks, having Islamic banking branches, are operating with more than 1700 branches across the country. Share of Islamic banking in deposits of banking industry is nearly 12.8% as on June 30, 2015 and is expected to grow to 20% by 2020. Islamic banking regulatory and a supervisory body is established by SBP to ensure Shariah compliance of Islamic banking operations. To encourage Islamic banking, Government of Pakistan in 2013 had constituted a Steering Committee, which has to pave the way for advancement of Islamic finance and its instruments. An initiative, taken by steering committee, includes the establishment of separate Islamic Finance Department at Securities and Exchange Commission of Pakistan (SECP) with the aim to promote and develop Islamic Capital Markets. In developing the International Standards for Islamic Finance, SBP played an active role in the institutions,

like International Islamic Financial Market (IIFM), Islamic Financial Service Board (IFSB) and Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI).

For a deposit taker, financial soundness and stability is very critical for the protection of principal amount as well as profit over it. All the potential depositors are very keen to know the credibility of a deposit taker institute either by making empirical analysis (for corporate investors) or by the previous experience of general public (ordinary investors). As the business of Islamic banks is growing with the passage of time, it is a matter of high importance that their financial stability must be gauged. In a previous study by Beck *et al* (2013), it was reported that Islamic banks are better capitalized and have higher asset qualities and are less likely to dis-intermediate during crises and showed better stock performance during the crisis in 2013.

LITERATURE REVIEW

There is a significant difference between conventional and Islamic banks in terms of conceptual framework, as Islamic banks totally follow the Islamic basic principles, in which Interest (Riba) is prohibited. Replacing interest, Islamic banks operate on the concept of profit and loss sharing arrangements between client and the bank, purchase and resale agreements and also provide services for fees. The rate of return on potential investment or obligation is not known or predetermined in Islamic banking. Hence, maximizing the risk and transferring it to investor rather than banks itself. In purchase and sale agreements (like, Ijarah), the Islamic banks make the profit by taking mark-up from the client which is usually based on benchmark rate, generally equal to the national or international market rate, like London Inter Bank Offer Rates (LIBOR) (SBP, 2015).

While discussing the rate of return and risk taking by the Islamic banks, it is common practice that PLS accounts for equal risk sharing between client and the bank, resulting in balanced income distribution and less monopolized economy.

1. Lending by the Islamic banks

Islamic banks lending principles are based on purchase re-sale practice, in which bank purchases the item by itself and then re-sales it to the client by allowing him to pay in installments. In certain practices, banks lend money on floating interest rate, which is equal to certain percentage of company's earnings. Hence, when the principal amount of loan is recovered the contract ends.

In another approach, the bank and client share an agreed ratio of capital to purchase an asset, thereby, converting the contract into partnership deed. At first, the profit generated by the asset is shared between banks and client at an agreed ratio. Later on, the asset's ownership is handed over to the borrower by giving borrower the chance to purchase the bank's share by paying in equal installment to bank.

2. Investment practice in Islamic banking

Approximately 100 Islamic equity funds are operating worldwide and this is the fastest growing (@ about 12-15%/annum) sector within Islamic financial system. The investment practices in Islamic banking concept regret the un-ethical investing, moral purchasing, alcohol, pork, gambling, etc., because these are prohibited by Islam.

3. Deposit taking

In Islamic banking, current deposits are taken by the banks as *Amanat* (Safe keeping and repaid on demand), the services provided on current deposits are generally free of cost, while, fixed deposits are taken on investment basis; in which profit or loss is shared predetermined ratio.

4 Measure of financial soundness

Financial stability means public trust and confidence on financial institutions, infrastructure, market and the system as a whole. It is very critical for healthy and well-functioning efficient economy. Islamic banks, in different operating countries, are playing a reasonable role in smooth running of country's economy.

For smooth and progressive macro-economic development (both nationally and internationally), financial system must be strong, which may allow the efficient capital flow in all the organs of economy. To make this possible, financial institutions including banks play a key role in strong macro-economic performance. The soundness and stability of financial institutions is so important that they are thought to be the pockets of economy. That is the reason, why governments are keeping closer look at financial and structural health as well as efficiency of the financial institutions and financial markets.

DATA COLLECTION AND METHODOLOGY

1. Z-score

The primary measure of financial soundness of banks is Altman's (z-score (Altman and Edith, 2006), as it has become popular and analyzes the bank's capitalization, profitability and deviation in asset return in one index. The z-score has been used frequently to check the bank's riskiness in crisis period (Foos *et al.*, 2010; Demirgüç-Kunt and Huizinga, 2010, Laeven and Levine, 2009; Altunbas *et al.*, 2011).

$$z - \text{score} = \frac{\text{CAR} + \text{ROA}}{\text{SDROA}}$$

Whereas, CAR is "capital to asset ratio" ROA is ratio of "total return on assets" and SDROA is the standard deviation in the ratio of ROA.

A time series analysis of different banks was made at the same period of time. The higher value of z-score indicates that bank is more stable and is less risky and vice versa.

Does z-score reflect same effect for both conventional and Islamic banks? The answer is, YES. Z-score can equally be applied to both conventional and Islamic banks, because it is the objective measure of bank soundness. This means that it only focuses the situation, in which banks are running out of capital and reserves, overstating the low or high risk adjusted return strategy used by the banks.

The possible criticism on the z-score, when applied to Islamic banks, is the characteristic of profit or loss sharing agreement by Islamic banks and hence passing on the risk of default to investors/depositors. The answer to criticism is, conventional banks also pass on risk to creditors in one form or other, for example, taking collateral/mortgage during extending loan. In contrast, when losses occurred, their effect is reflected in capital and reserves and, hence, additional layer of protection is exhausted.

At first stage of analysis, it was found that the values of z-score for both conventional and Islamic banks. Conventional banks were further divided into large conventional and small conventional banks, and their z-score was compared with each other, to find out the final results.

2. Data collection

Data was collected during last 8 years (2007 to 2014) financial statements of 15 banks operating in Pakistan. Banks were categorized as Large Conventional, Small Conventional and Islamic Banks, as given in Banking Survey of Pakistan 2013. Five large conventional banks (i.e., HBL, UBL, MCB, ABL and NBP) were selected; five small conventional

banks, i.e., Faysal Bank, BOP, BOK, JS Bank and Askari Bank, were selected, whereas, five Islamic banks, which include Dubai Islamic Bank, Al-Baraka Bank, Meezan Bank, Bank Islami and Bank Al-Falah were selected for evaluation.

First individual values, i.e., Total Assets, Total Equity, Gross Loan, etc., were taken directly from financial statements of each bank. The average was calculated of individual ratios for each bank for all 8 years. Then based on those average ratios, required values of CAR, ROA, Standard Deviation of ROA, were calculated for each bank, followed by Z-Score calculation based on ratios.

RESULTS AND DISCUSSION

1. Z-score

Table 1 shows that z-score of large conventional bank showed little variation, as compared to Islamic and small conventional banks. The mean value of z-score for large conventional banks was 31.3 at 95% confidence interval with the standard deviation of 8.9. The upper limit of z-score of large conventional banks showed the value of 42.4. The mean value of Islamic banks was 45.4 at 95% confidence interval with the standard deviation of 15, whereas, the upper limit of z-score of Islamic banks showed the value of 64. The mean value of small conventional banks was found to be 26.3 at 95% confidence interval with standard deviation of 12, and the upper limit of z-score was recorded 41.6 (Fig. 1).

Table 1: Descriptive statistics for Z-score.

Bank type		Statistics	Std. error		
Z-score	Large conventional	Mean	31.3060	3.99139	
		95% confidence interval for mean	Lower bound		20.2241
			Upper bound		42.3879
			5% trimmed mean		31.8233
		Median	35.0100		
		Variance	79.656		
		Islamic	Mean		45.3660
95% confidence interval for mean	Lower bound		26.2625		
	Upper bound		64.4695		
	5% trimmed mean		45.7100		
Median	43.2900				
Variance	236.710				
Small conventional	Mean	26.3480	5.51873		
	95% confidence interval for mean	Lower bound		11.0256	
		Upper bound		41.6704	
		5% trimmed mean		26.3428	
	Median	25.0600			
	Variance	152.282			

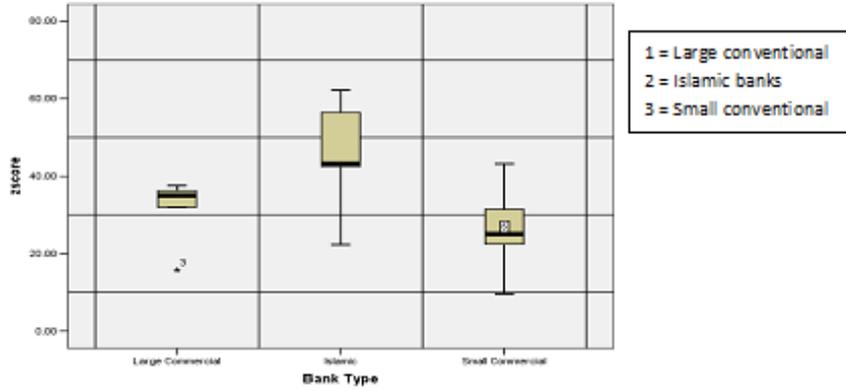


Fig. 1: Z-score.

2. CAR

As shown in Table 2, the average mean value of capital to assets ratio of large conventional banks showed the value of 12, with little variation, whereas the average mean value of Islamic banks was 17, and this value for small conventional banks was 14, which showed that Islamic banks are vulnerable to take risk. This can be the individual strategy of every bank but

it is a fact that Islamic banks pass on larger share of investment risk to their clients. This can also be depicted that Islamic banks keep adequate capital to survive or keep themselves safe from insolvency, hence taking a cushion against possible losses from operations. Small conventional banks are also vulnerable to risk as compared to large conventional banks, hence showing little CAR (Fig. 2).

Table 2: Descriptive statistics for CAR.

Bank type		Statistics	Std. error		
CAR	Large conventional	Mean	11.9460	1.05721	
		95% confidence interval for mean	Lower bound		9.0107
			Upper bound		14.8813
		5% trimmed mean	11.9472		
		Median	12.5400		
		Variance	5.588		
Islamic	Islamic	Mean	17.0140	2.24874	
		95% confidence interval for mean	Lower bound		10.7705
			Upper bound		23.2575
		5% trimmed mean	17.0150		
		Median	18.1300		
		Variance	25.284		
Small conventional	Small conventional	Mean	14.1740	3.07752	
		95% confidence interval for mean	Lower bound		5.6294
			Upper bound		22.7186
		5% trimmed mean	14.1683		
		Median	10.9000		
		Variance	47.356		

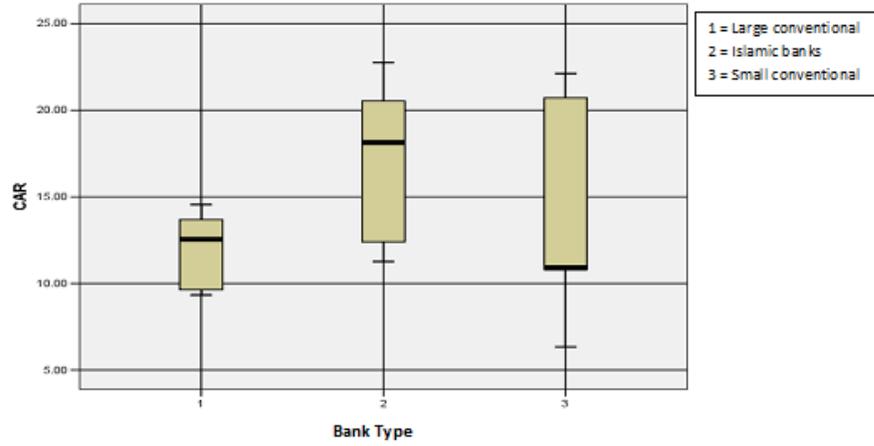


Fig. 2: Capital to assets.

3. ROA

Table 3 also depicts that return on assets value for large conventional banks showed relatively high value, i.e., 2.8, as compared to Islamic (1.0) and small conventional banks (0.71). By simultaneously

analyzing both, CAR and ROA ratios, it is clear that large conventional banks take higher risk to earn high return and small conventional banks take little risk and, hence, earn little profit as compared to large (Fig. 3).

Table 3: Descriptive statistics for ROA.

Bank type		Statistics		Std. error	
ROA	Large conventional	Mean		2.8560	0.43257
		95% confidence interval for mean	Lower bound	1.6550	
			Upper bound	4.0570	
		5% trimmed mean		2.8011	
		Median		2.5500	
		Variance		0.936	
Islamic	Islamic	Mean		1.0300	0.30661
		95% confidence interval for mean	Lower bound	0.1787	
			Upper bound	1.8813	
		5% trimmed mean		1.0222	
		Median		0.8400	
		Variance		0.470	
Small conventional	Small conventional	Mean		0.7080	0.12835
		95% confidence interval for mean	Lower bound	0.3516	
			Upper bound	1.0644	
		5% trimmed mean		0.6978	
		Median		0.5700	
		Variance		0.082	

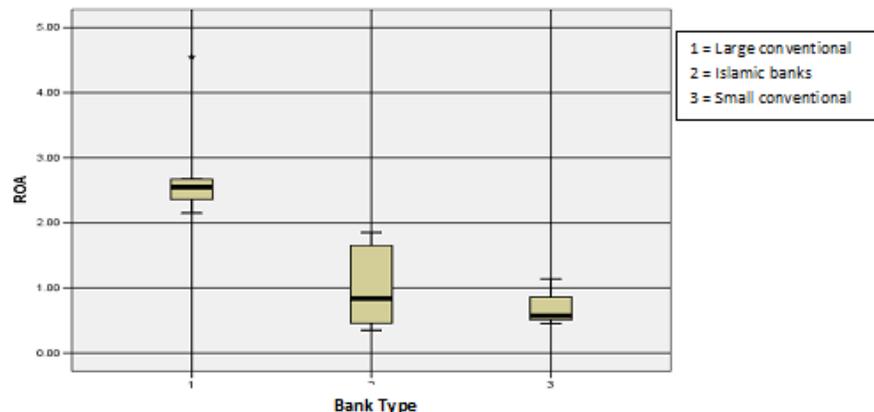


Fig. 3: Return on assets.

RECOMMENDATIONS

It is a fact that large conventional banks, operating in Pakistan, take high risk (as shown by CAR) to earn more profit as compared to other type of banks. All their recourses are put forward by the management to earn profit. In the case of Islamic banks, which use the higher CAR from other banks, these use little resources for earning profit and use preventive strategies while investing its assets. From z-score values, it is clear that small conventional banks are less stable banks and their ROA and CAR are less, as compared to other banks because these invest less aggressively. Large conventional banks have relatively small z-score than Islamic banks while greater than small conventional banks, but with small CAR, large banks put their maximum risk to earn more profit, which results in higher ROA than all other types of banks. Z-score of Islamic banks is relatively higher than large and small conventional banks, which shows that Islamic banks are more stable than other type of banks. Their CAR is larger, which means that these also show little aggressiveness in their investment strategies and their ROA is relatively higher than small conventional banks but smaller than large conventional banks.

Still financial soundness of banks is not limited to Z-score, other aspects of banking may be taken into consideration for any of investment or capital budgeting decisions. Also, the risk taking behavior may differ from bank to bank and depends totally upon the management decisions, which ultimately affects the returns. This can be evidenced from the value of standard deviation from mean already mentioned. However, with reference to Islamic banks, it is very clear from the results that these have emerged as strong competitors to conventional ones.

This study can be further expanded by analyzing more sample data from other countries and variables to expand the dimensions of study.

CONCLUSION

The data analyzed and statistics used concludes that Islamic banks are the true competitors of conventional banks either these are large or small conventional banks. As far as the financial stability of Islamic banks is concerned, these are more stable than small conventional banks but at par with large conventional banks.

However, the investment decisions made by the investors may not only focus on the Z-Score as a measure of financial soundness because other factors may also affect the CAR and ROA.

REFERENCES

- Ainley, M., A. Mashayekhi, R. Hicks, A. Rahman and A. Ravalia, 2007. *Islamic Finance in the UK: regulation and challenges*. Financial Services Authority, London.
- Altman, E.I. and H. Edith, 2006. *Corporate financial distress and bankruptcy: Predict and avoid bankruptcy, analyze and invest in distressed debt*. (3rd Ed.), Hoboken, NJ: Wiley. 235-238.
- Altunbas, Y., S. Manganelli and D. Marques-Ibanez, 2011. *Bank risk during the financial crisis – Do business models matter?* ECB Working Paper Series No. 1394. European Central Bank, Frankfurt.
- ADB, 2010. *Annual Report 2010*. Manila, Philippines.
- Beck, T., A. Demirgüç-kunt and O. Merrouche, 2013. *Islamic vs conventional banking: Business model, efficiency and stability*. *J. Bank. Financ.*, 37(2): 433-447.
- Demirgüç-Kunt, A. and H. Huizinga, 2010. *Bank Activity and Funding Strategies: The impact on risk and returns*. *J. Financ. Econ.*, 98: 626-650.
- El Qorchi, M., 2005. *Islamic finance gears up*. *Financ. Dev.*, 42(4). Washington: International Monetary Fund. IMF Working Paper 98/30.
- Foos, D., L. Norden and M. Weber, 2010. *Loan growth and riskiness of banks*. *J. Bank. Financ.*, 34(12): 2929-2940.
- IDB, 2011. *Annual Report 1432H (2011)*. Islamic Development Bank, Jeddah, Saudi Arabia.
- Laeven, L. and R. Levine, 2009. *Bank governance, regulation and risk-taking*. *J. Financ. Econ.*, 93(2): 259-275.
- SBP, 2015. *Handbook on Islamic Banking Products and Services*. State Bank of Pakistan.
- SBP, 2015. *Press releases*. State Bank of Pakistan.